

BRITISH COLUMBIA MINISTRY OF  
ENERGY, MINES & PETROLEUM  
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TG 211-78

REPORT ON

GEOLOGICAL AND GEOCHEMICAL SURVEYS

by

P. J. S. BOYLE - B.Sc.

on the

RED BLUFF #1 TO #4 MINERAL CLAIMS

Situated south of Netson Lake on Bluff Creek  
in the Liard Mining Division B. C.

58° 34' N 126° 38' W

N.T.S. 94L/10E

Owner/operator

TEXASGULF CANADA LTD./TEXASGULF INC.

December 1978  
Filed May, 1979

Calgary,  
Alberta

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## INTRODUCTION

Field work was undertaken on the Red Bluff property ( Red Bluff #1 to #4 mineral claims(9 units)) during the 1978 field season. The brief program involving stream sediment sampling, sampling of springiron gossans, and prospecting, was conducted by A. E. Eunson, D. Jewett and the author on August 29, 1978. Field work costs were approximately \$1400.

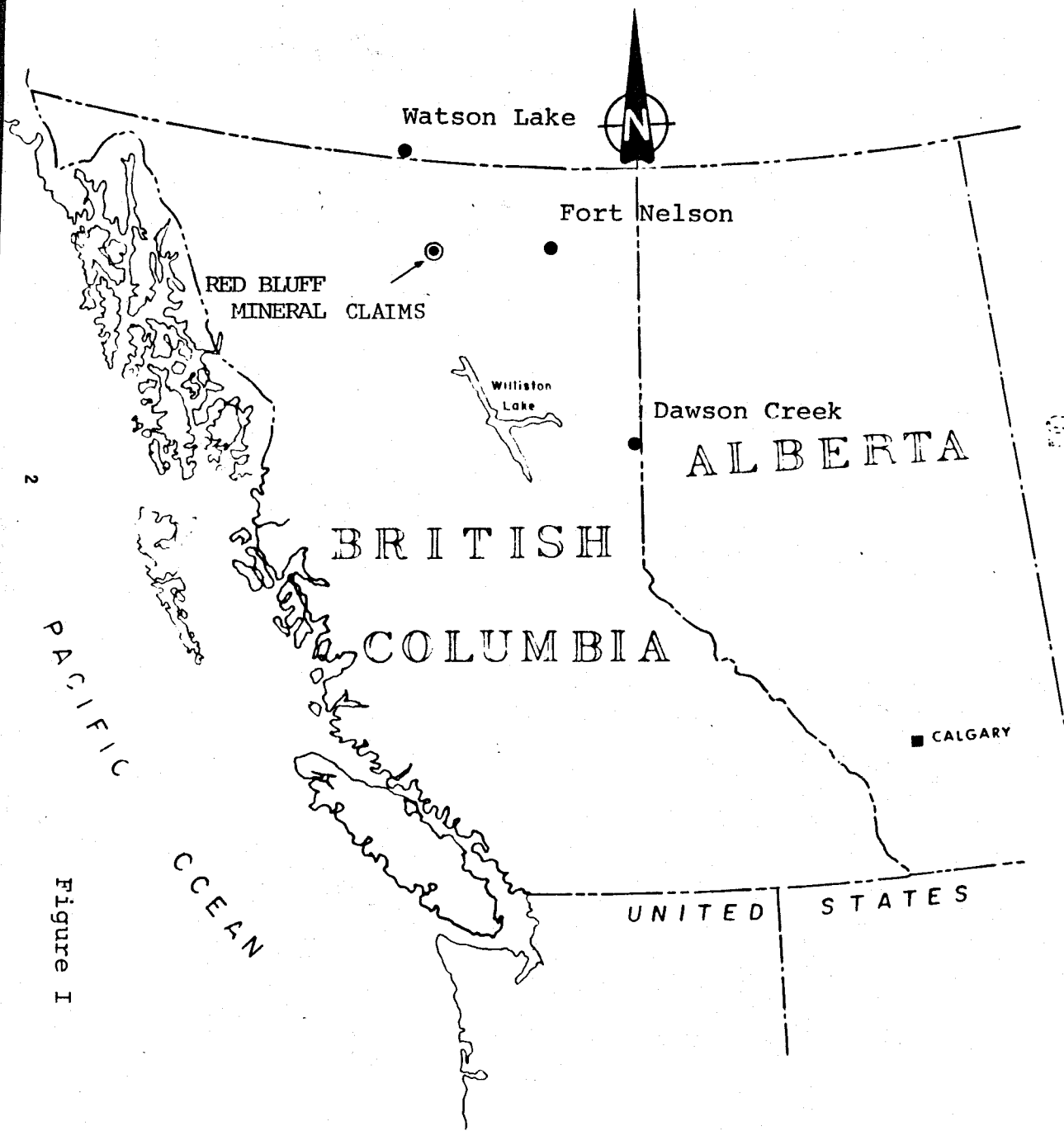
No sulphide mineralization was discovered. However, a large white calcrete deposit from which samples were collected has an anomalous lead zinc copper content (sample 921B/5/78 contained 144 ppm Pb, 8,800 ppm Zn, and 88 ppm Cu). Also very high zinc values were returned from soil samples obtained from Pit 78-A (Samples 921B/1000/78 to 921B/1002/78 all contained more than 20,000 ppm Zn.) Sampling of this springiron gossan during 1977 had determined that it had an unusually high zinc content. (Sample GA5,GB6,GB7,GB8 andGC9 contained between 4%Zn and 8.4%Zn.) The property remains an interesting geochemical anomaly. Additional work will be required to determine the metal source. The purpose of this work is to locate a shale hosted Pb Zn Cu sulphide deposit.

## LOCATION, ACCESS & TERRAIN

The Red Bluff property, a zinc prospect, lies near the center of the Kechika Map sheet (NTS 94L), south of Netson Lake and east of the junction of the Gataga and Kechika Rivers. The nearest supply point is Watson Lake in the Yukon, 120 miles northeast of the property. (See fig. 1)

Access during the survey was accomplished by fixed wing from Muncho Lake on the Alaska Highway to the Tg base camp on Mayfield Lake, thence by helicopter to the property.

The property is situated in precipitous country east of the Rocky Mountain Trench. The Red Bluff mineral claims, covering an area of 556 acres, lie astride the deeply incised east-west trending Bluff Creek valley. The valley floor lies below 3,500'. The ridges to the north and south rise abruptly to over 5,000'. In general, the property is wooded. The area has been burned recently, hence the deadfalls and secondary growth are particularly dense. The claims are located at 58°34'N 126°38'W (See fig. 1A).



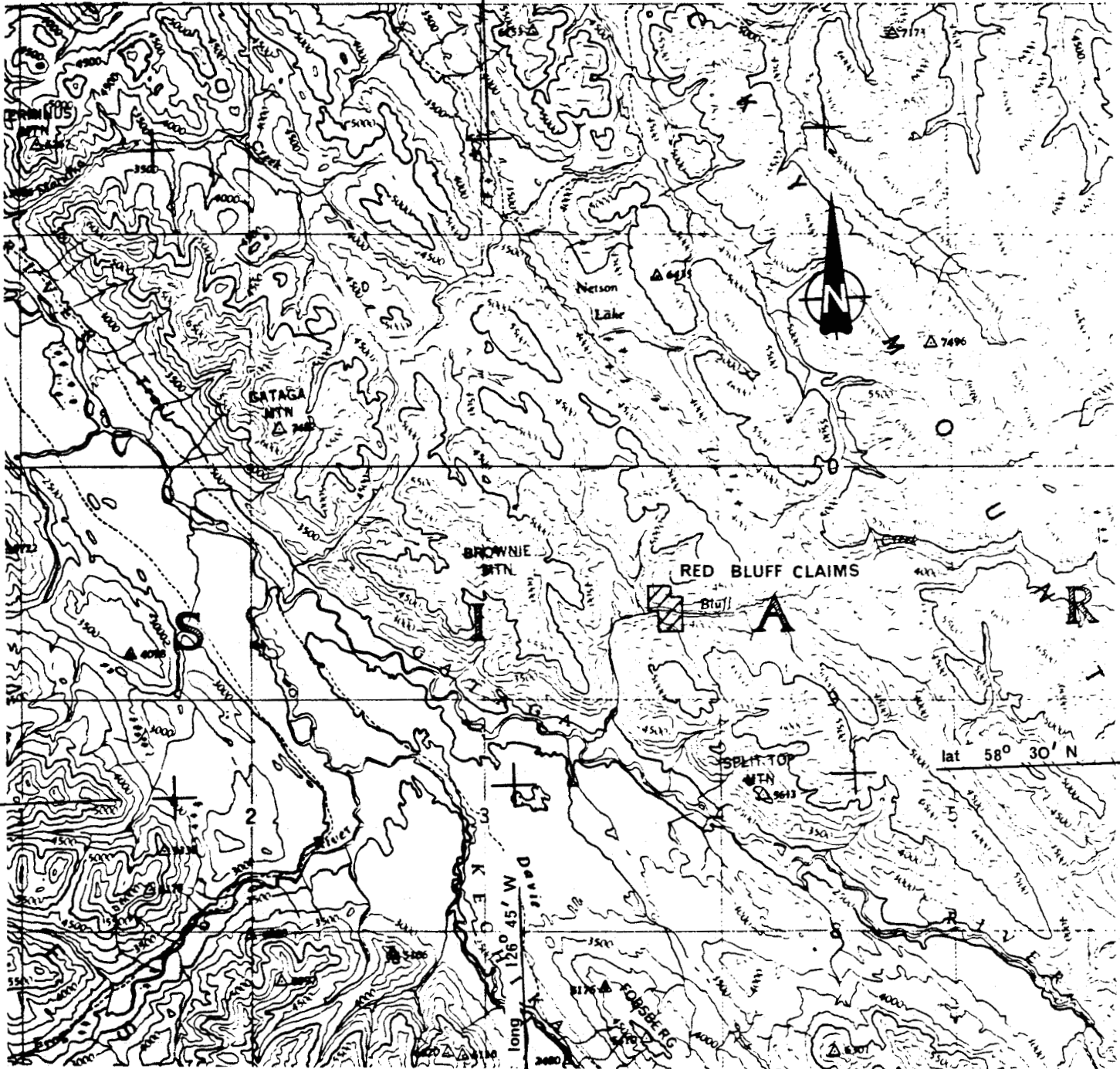
SASK.

0 50 100 200  
MILES

LOCATION MAP  
RED BLUFF CLAIMS  
B.C. CANADA

Figure I

2



Kechika Map Sheet NTS 94/L  
 Northeastern British Columbia

Scale 1 : 250,000

FIGURE 1A

<b>Texasgulf Inc.</b>			
DETAILED LOCATION MAP			
RED BLUFF CLAIMS			
NTS 94 L / 10		Proj 70	
WORK BY	DRAWN BY	DATE	DRWG NO
P.C.H., P.I.S.B.			
Kilometres <span style="display: inline-block; width: 100px; border-bottom: 1px solid black; position: relative; top: -5px;"> <span style="position: absolute; left: 0; top: -5px;">5</span> <span style="position: absolute; right: 0; top: -5px;">0</span> <span style="position: absolute; right: 0; top: -5px;">5</span> </span>			

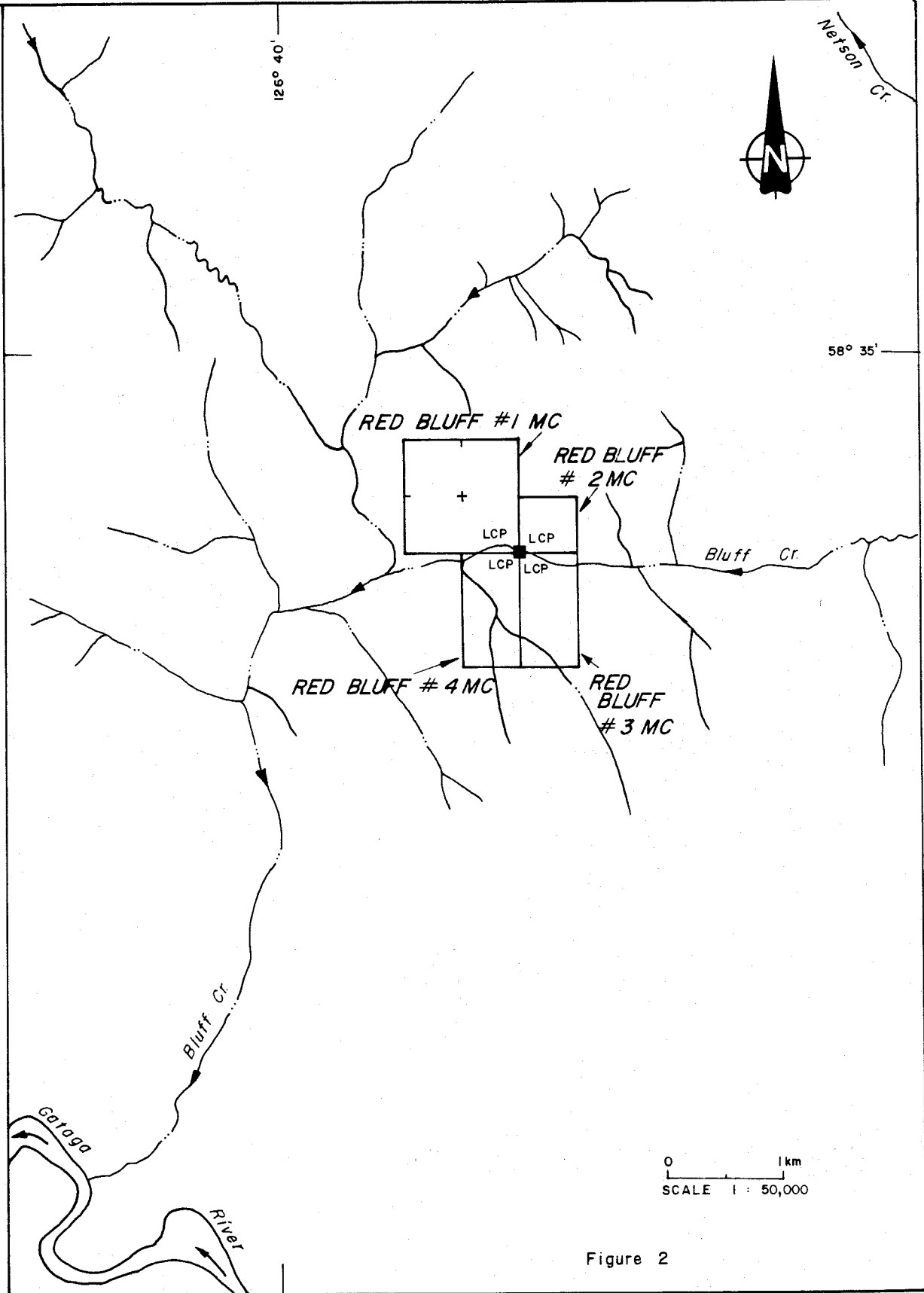


Figure 2

Texasgulf Inc.

CLAIM SKETCH

**RED BLUFF CLAIMS**

94L/10

Proj. 70

WORK BY	DRAWN BY	DATE	DRW.G NO.
P.J.S.B.	E.R.	24 - 10 - 79	

PROPERTY HISTORY AND DEFINITION

The Red Bluff claims were located in May, 1978. Work on the property has been completed by Texasgulf Inc., on behalf of its wholly-owned subsidiary, Texasgulf Canada Ltd., the registered owner of the claims.

Geochemical analyses of various samples collected during the 1977 field season from a red springiron gossan on the north side of Bluff Creek gave zinc values greater than 20,000 ppm total Zn. However, it should be noted that the associated lead and copper values were unremarkable. Zinc assays of these samples gave the following results.

	<u>Assay</u>			
Traverse 94-L-10(P)	GA 5	4%	Zn	(7 ppm Pb 3 ppm Cu)
PB PH June 13, 1977	GB 6	7.6%	Zn	(2 ppm Pb 5 ppm Cu)
	GB 7	7.1%	Zn	(2 ppm Pb 4 ppm Cu)
	GB 8	8.4%	Zn	(2 ppm Pb 4 ppm Cu)
	GC 9	5.3%	Zn	(2 ppm Pb 4 ppm Cu)

It is on the basis of this interesting geochemical anomaly, that the claims were staked.

At the time the 1978 work was completed, the property consisted of four MGS claims, Red Bluff #1 to #4 MCS, totalling 9 units (see fig. 2), covering a raw zinc prospect. Further work is contemplated on this ground. There is no record of previous work on this ground.

SUMMARY OF WORK COMPLETED

Geochemical Survey

On August 29, 1978, a total of eighteen stream sediment, five soil samples, and eighteen rock chip samples were collected. These were analyzed for Cu, Zn and Pb. The stream sediment geochemical data was plotted on physiographic base maps at a scale of 1:5,000. (Figures 4 to 7.) Rock chip and soil geochemical data is shown on Figures 3 and 8, and Table #1. (Four of the rock chip samples containing greater than 20,000 ppm zinc were assayed for zinc.)



WORK DISTRIBUTION

The work described in this report was restricted to the Red Bluff #1 to #4 mineral claims.

CLAIM STATUS SUMMARY

The Red Bluff mineral claims were staked in May, 1978. At that time, the snow cover was one to five feet deep. The weather was cool and overcast.

On a basis of cost of work detailed in this report, Assessment Work Credits are to be applied to these mineral claims. The cost of the 1978 field work (\$1,436.85) is detailed in The Statement of Expenditures (see Appendix A of this report). The status of the Red Bluff #1 to #4 mineral claims as of June 14, 1979, is as follows:

<u>Mineral Claim</u>	<u>#Mineral Claim Units</u>	<u>Grouping</u>	<u>Anniversary Date</u>	<u>Expiry</u>
Red Bluff #1	4 )		(June 13, 1978	81
Red Bluff #2	1 )	Red Bluff	(June 13, 1978	81
Red Bluff #3	2 )	Group	(June 13, 1978	81
Red Bluff #4	2 )		(June 13, 1978	81
	9			

It is estimated that expenditures on this ground during the 1977 field season, prior to staking, totalled approximately \$500. This work was undertaken as part of the Tg 1977 Gataga Project Regional Reconnaissance Program.

## GEOLOGICAL SETTING

The area lies within the Rocky Mountain physiographic region which is underlain by a succession of marine carbonate, pelitic and clastic strata, ranging in age from Cambrian to Mississippian. The strata have been deformed by broad folding, and thrust faulting (west dipping), both of which have a general regional trend of north 50° west. The limestone units appear much more highly deformed by folding and thrusting than do the shales.

A thin limestone unit is overlain by a thick shale/siltstone section. The shale/siltstone section has been divided into a lower cherty shale unit, a middle shale unit and an upper siltstone unit. The chert content of the lower unit is quite variable. The middle unit is locally carbonaceous and pyritic. It is this unit which hosts the geochemically anomalous spring-iron gossans. The upper siltstone unit is locally sandy and limy. Silver weathering fissile shales overlie the shale/siltstone section (see Fig. 3).

The geologic data is not sufficiently detailed at this time to permit an accurate determination of true stratigraphic thicknesses. Structural repetition of the stratigraphic section is suspected.

No sulphide occurrences were located on the property.

## GEOCHEMISTRY

### Sampling and Analytical Procedure

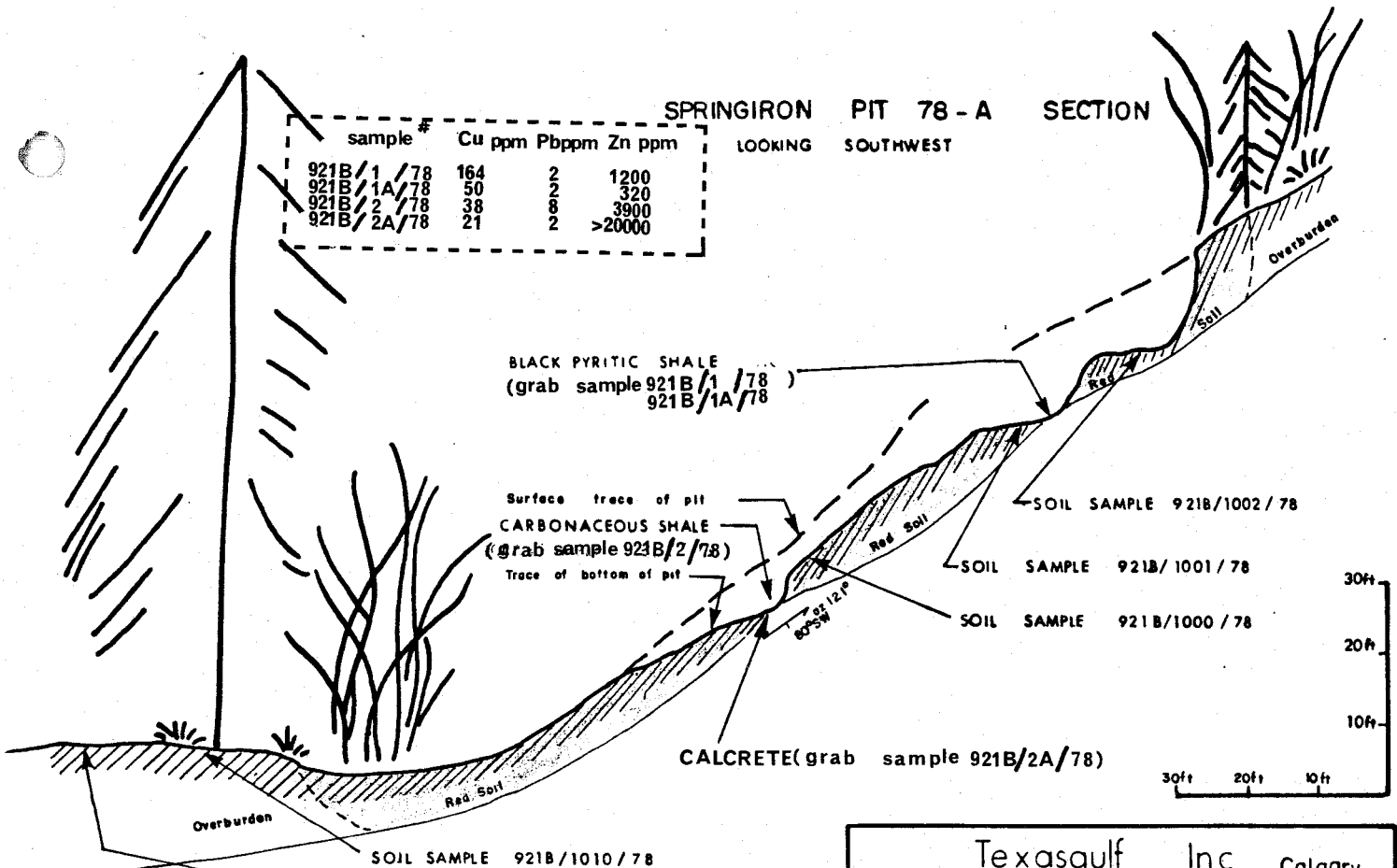
A stream sediment - silt sampling survey was carried out along Bluff Creek, upstream and downstream from the original geochemical anomaly. A total of 18 stream sediment samples were collected at 100 metre intervals along the bank of the creek. Bluff Creek is fast flowing, 10 metres wide and 1 metre deep. Sample sections were flagged and numbered (see Fig. 7).

Nine samples were collected from a large pit blasted in the spring-iron gossan from which the geochemically zinc rich samples had been taken during the 1977 field season. Both "soil" (mud) and "rock chip" (red springiron - calcrete) samples were collected from this pit (see Fig. 8).

SPRINGIRON PIT 78-A SECTION

LOOKING SOUTHWEST

sample #	Cu ppm	Pb ppm	Zn ppm
921B/1/78	164	2	1200
921B/1A/78	50	2	320
921B/2/78	38	8	3900
921B/2A/78	21	2	>20000



BLACK PYRITIC SHALE  
(grab sample 921B/1/78  
921B/1A/78)

Surface trace of pit  
CARBONACEOUS SHALE  
(@ grab sample 921B/2/78)  
Trace of bottom of pit

SOIL SAMPLE 921B/1002/78

SOIL SAMPLE 921B/1001/78

SOIL SAMPLE 921B/1000/78

CALCRETE (grab sample 921B/2A/78)

30ft  
20ft  
10ft  
30ft 20ft 10ft

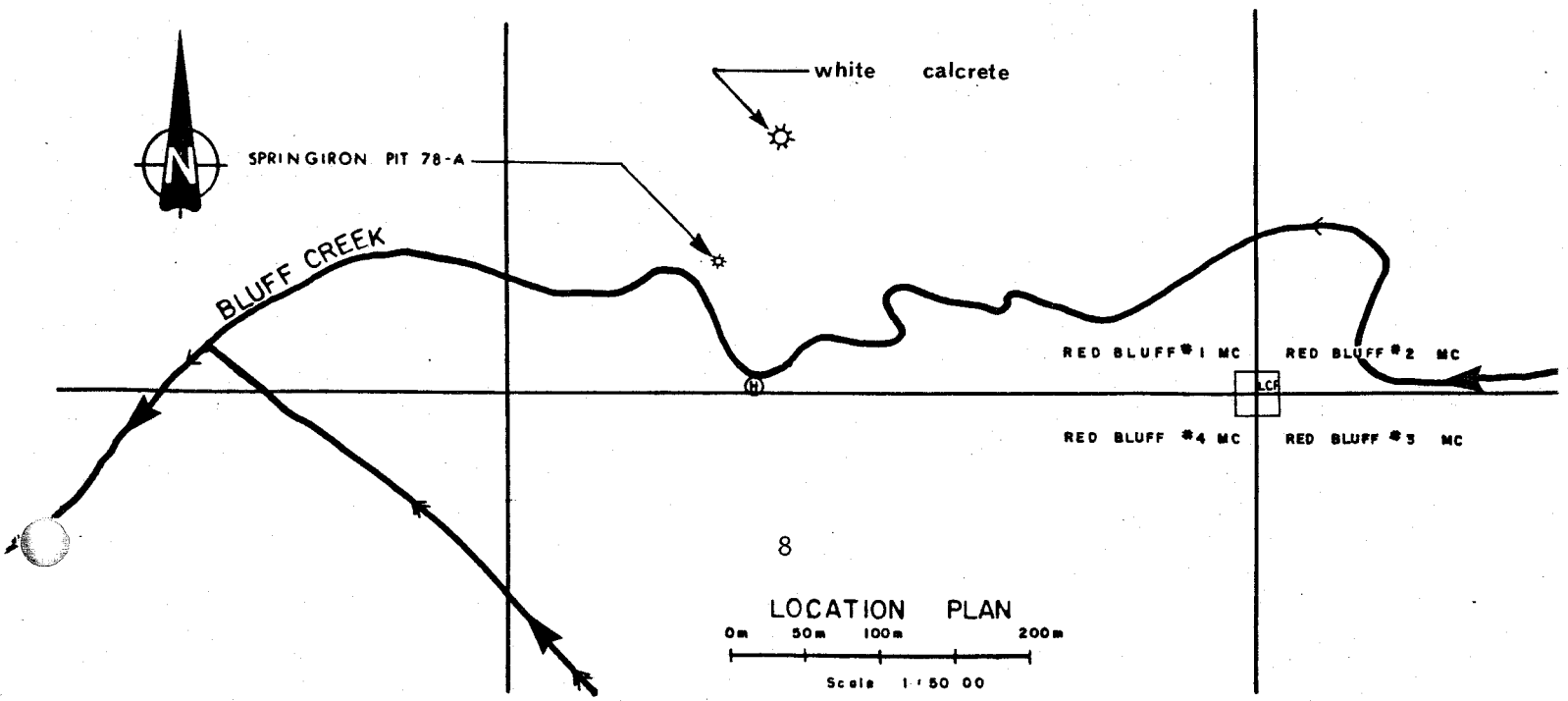
SOIL SAMPLE 921B/1010/78

No direct SOIL SAMPLE 921B/1011/78

fig 8

SAMPLE #	Cu ppm	Pb ppm	Zn ppm
921B/1000/78	7	4	>20000
921B/1001/78	4	3	>20000
921B/1002/78	9	4	>20000
921B/1010/78	3	2	15400
921B/1011/78	17	13	780

Texasgulf Inc Calgary  
**RED BLUFF PROPERTY** Project 921B  
**SPRINGIRON PIT 78-A**  
 Northeastern British Columbia  
 NTS94L/10 by PB Dec 15, 1978



8

LOCATION PLAN

0m 50m 100m 200m  
 Scale 1:80 00

Eighteen rock chip grab samples were submitted for geochemical analysis. These samples were taken at selected outcrop locations which are indicated on the Rock Chip Geochemistry-Geology Map (fig. 3). The cherty shale unit, shale unit, siltstone unit, red springiron gossans and white calcrete deposits on the property were sampled. The rock chip analyses are listed in Table #1.

Stream sediment - silt samples were taken with a mattock or sampling trowel. A sample was placed in a standard high wet strength (35 lb.) brown kraft paper sample bag. Care was taken to prevent contamination of the sample. Notes describing the sample and its location are detailed in Appendix C.

Soil and rock chip samples were also collected using a mattock and placed in standard high wet strength brown kraft paper sample bags. Sample locations were selected carefully in order to obtain a representative sample. Also, see Appendix C for sample descriptions.

All samples were air dried in the field and shipped to Bondar Clegg Laboratories Ltd. of North Vancouver for analysis.

At the lab the samples were dried at 78° - 85° F. and sieved. Stream sediment and soil samples were sieved to a -80 mesh consistency through a nylon and stainless steel sieve. Rock chip samples were crushed and sieved to a -100 mesh consistency. One-half gram of the dried pulp was weighed into a calibrated test tube and 0.5 ml of HCl and 1.5 ml HNO<sub>3</sub> (Aqua Regia) was added. The samples were digested for two hours at low heat (85° to 100° F.). The digested samples were cooled, made up to 10 ml volume with distilled water, and the solutions thoroughly mixed. Analysis for lead, zinc and copper was then done by Atomic Absorbtion procedures using a Tecktron 6.

#### Geochemical Results

A statistical treatment of the results was not possible due to the small number of samples collected. Examination of the stream sediment metal values indicates that they are generally unremarkable, only sample 921B/2025/78 shows highly anomalous values. The metal content of this

sample was 14,900 ppm Zn, 105 ppm Cu and 12 ppm Pb. The "highly anomalous" ( $\bar{x} + 2$ ) range was determined by comparison with regional data (Tg Gataga Project 1977 Stream Sediment - Silt Sampling Program). The metal content of the other silt samples was below the background value ( $\bar{x}$ ) as determined from regional data, with the exception of the zinc content of sample 921B/2026/78 which showed 870 ppm Zn, 10 ppm Pb and 35 ppm Cu (see fig. 4 - 7).

Samples 921B/2025/78 and 921B/2026/78, described above, were collected on the south shore of Bluff Creek. During the 1977 field season, two stream sediment samples (KC9 and KC10) were taken approximately 200 metres upstream from 921B/2025/78, on the north shore of the creek. Red mud seeps into the creek at this point, and the silt sediments are stained red. This mud is derived from the zinc rich springiron gossan sampled by Pit 78-A. Samples KC9 and KC10 contained  $\gt 20,000$  ppm Zn (5.3% Zn), 2 ppm Pb, 4 ppm Cu and 16,200 ppm Zn, 2 ppm Pb, 2 ppm Cu, respectively.

Five soil samples were collected during the 1978 field season. The results are tabled on fig. 8 of this report. Samples 921B/1000/78, 921B/1001/78 and 921B/1002/78 reported  $\gt 20,000$  ppm Zn, lead and copper values were very low. These samples, collected from Pit 78-A (red mud samples), confirmed the 1977 results (samples KB6, KB7 and KB8). Samples 921B/1010/78 (15,400 ppm Zn, 2 ppm Pb, 3 ppm Cu) and 921B/1011/78 (780 ppm Zn, 13 ppm Pb, 17 ppm Cu) were taken on flat ground below springiron gossans, approximately 50 metres and 150 metres east of Pit 78-A. The red soil in both of these samples was derived from the same source as that at Pit 78-A.

Eighteen rock chip grab samples were submitted for copper, lead and zinc analysis. (See fig. 3 for sample locations, outcrop geology and geochemical results.) The analyses were obtained in order to determine the base metal content of rock units on the property. No copper, lead or zinc sulphides were seen in any samples. Relatively high zinc values were anticipated for the white calcrete and springiron samples, (i.e. samples 921B/2A/78, 921B/3/78, 921B/4/78, 921B/5/78, 921B/8/78, 921B/9/78, and 921B/26A/78).

Copper, lead and zinc results of the rock chip analyses are listed below. Outstanding zinc values were obtained from the Shale Unit in the vicinity of the Springiron Pit 78-A (320 ppm Zn to 3,900 ppm Zn). Highly anomalous zinc and lead values were obtained from the white calcrete deposit on the property (18 ppm Pb, >20,000 ppm Zn & 144 ppm Pb, >20,000 ppm Zn). Other small springiron gossans were sampled, all of which had a zinc content greater than 20,000 ppm.

TABLE #1

TABLE OF GRAB SAMPLE & ROCK CHIP SAMPLE GEOCHEMICAL ANALYSES  
(For sample locations see fig 3)

Sample#	Rock Unit	Cu ppm	Pb ppm	Zn ppm	Zn Assay	Sample group see fig. 3
921B/10/78	Cherty shale unit	28	2	430		3
921B/1/78	Shale unit	164	2	1,200		4
921B/1A/78	" "	50	2	320		4
921B/2/78	" "	38	8	3,900		4
921B/23/78	" "	4	8	18		5
921B/23A/78	" "	34	2	96		5
921B/6/78	" "	24	6	74		1
921B/7/78	" "	165	6	150		2
921B/2A/78	White calcrete	21	2	>20,000	3.26% Zn	4
921B/3/78	White calcrete	8	3	>20,000		1
921B/4/78	" "	15	18	>20,000		1
921B/5/78	" "	88	144	>20,000		1
921B/26A/78	" "	64	4	>20,000	2.12% Zn	1
921B/8/78	Red white calcrete	132	2	>20,000	2.36% Zn	2
921B/9/78	Black spring-iron	16	2	>20,000	4.00% Zn	2
921B/6A/78	Siltstone unit	420	7	155		6
921B/25/78	" "	114	5	32		6
921B/26/78	" "	38	2	42		6

CONCLUSIONS

Two distinct geochemical anomalies have been tentatively identified on this property:

- 1) Analysis of the white calcrete deposit (921B/5/78) on the north side of Bluff Creek gives anomalous copper, lead and zinc values. This white calcrete deposit lies near the shale unit/siltstone unit contact. Shale unit float found in the vicinity of the white calcrete deposit shows disseminated pyrite.
- 2) The pit 78-A springiron gossan has an anomalous zinc content. The source of the zinc has not been determined. The springiron gossan is located near the cherty shale unit/shale unit contact.

Field work failed to locate the source of these geochemical anomalies. The metal source must lie somewhere on the hillside above the geochemical anomalies (on the north side of the valley).

RECOMMENDATIONS

A program of systematic prospecting in this area should determine whether the high metal values reflect the presence of sulphides, or merely highly unusual spring groundwater conditions. All outcrops should be sampled in order to determine if the shales do contain anomalous zinc. Attention should be particularly directed to the shale unit/siltstone unit contact (see LOCATION AA, fig. 3). The steepness of the hillside precludes the use of a systematic soil survey.

This work will involve two to three days work for a geologist/assistant team. Cost of this work will be approximately \$2,000.

*Peter Boyle*  
\_\_\_\_\_  
Peter Boyle

APPENDIX A

STATEMENT OF EXPENDITURES



Texasgulf Inc.

STATEMENT OF EXPENDITURES

RED BLUFF #1 to #4 M.C.'s (9 units)

(Geological Mapping, Geochemical Sampling)

FIELD COSTS

SALARIES AND FRINGE BENEFITS - TEXASGULF, INC.

P. Boyle, BSc. - Supervision		
Period August 29, 1978 1 day @ \$90.00	\$90.00	
D. Jewett, Geologist		
Period August 29, 1978 1 day @ \$100.00	\$100.00	
A. Eunson, Assistant		
Period August 29, 1978 1 day @ \$35.00	\$35.00	
	<u>\$225.00</u>	\$225.00

CAMP EXPENSE

3 man-days @ \$25.00	\$75.00	
Pro-rated share of camp mob, demob.	\$100.00	
	<u>\$175.00</u>	\$175.00

HELICOPTER SUPPORT

Texasgulf Bell 206-B 1½ hrs @ \$300.00	\$450.00	\$450.00
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ANALYTICAL COSTS

41 soil samples, stream sediment samples and rock chip samples		\$116.85
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MISCELLANEOUS

Travel (pro-rated)	\$50.00	
Shipping	\$15.00	
Communications	\$15.00	
	<u>\$80.00</u>	\$80.00

<u>OFFICE COSTS</u> - REPORT PREPARATION	Sub Total	\$1,046.85
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SALARIES AND FRINGE BENEFITS - TEXASGULF INC.

P. Boyle BSc. - Geologist		
Period December 15 - 18, 1978 4 days @ \$90.00	\$270.00	
Draughting, typing, miscellaneous	\$120.00	
	<u>\$390.00</u>	\$ 390.00

TOTAL		<u>\$1,436.85</u>
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*Peter Boyle*  
Peter Boyle

APPENDIX B

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Peter J. S. Boyle hereby certify that:

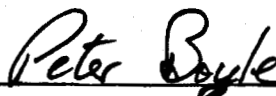
- 1) I am a geologist.
- 2) I am a graduate of the University of Saskatchewan (Saskatoon) B.Sc Advanced (Geology),(1972).
- 3) Since 1972 I have been engaged in mineral exploration in British Columbia.
- 4) I have been employed by Texasgulf Inc. since 1974.
- 5) I personally supervised and participated in the field work and have assessed and interpreted all the data resulting from the work.
- 6) I have held a BC Blasters Certificate since 1975.

D. Jewett Geologist BSc

D. Jewett obtained his BSc at the University of British Columbia in 1967. He has been employed as a geologist by Texasgulf since 1969. He has worked on massive sulphide projects throughout Canada.

A. E. Euenson Assistant

Mr. Euenson is enrolled in his 3rd year of Geology at the University of Manitoba. This was his third season of geological related field work.

  
Peter Boyle

APPENDIX C

1978 GEOCHEMICAL DATA SHEETS

GEOCHEMICAL DATA SHEET— STREAM SILTS

SAMPLER AC Eunson

NTS 94-L-10

CREEK BLUFF CREEK

DATE Aug 29, 78

PROJECT RED BLUFF Proj 921B

AIR PHOTO No. A-12347-109

SAMPLE No.	VOLUME		DRAIN-AGE	PH	TYPE of SAMPLE	COLOUR	TEXTURE	% ORGANIC MATERIAL	PETROLOGY OF BEDROCK AND/OR FLOAT	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS ppm				
	WIDTH M	DEPTH CM									Cu	Pb	Zn		
2010	15	100	W		side	grey	fine sand	Nil		Samples 2010 → 2020 taken upstream from helipad (east) (north shore)	34	13	490		
2011	15	100	W		"	"	"	"			26	10	273		
2012	15	100	W		"	"	"	"			32	13	247		
2013	15	100	W		"	"	"	"			31	10	202		
2014	15	100	W		"	"	Coarse sand	"		Springton gossan on south shore of creek	29	9	190		
2015	15	100	W		"	"	fine sand	"			29	11	201		
2016	15	100	W		"	"	silt	"			25	10	188		
2017	15	100	W		"	"	"	"		75 m past 2017 LCP on south shore	29	10	244		
2018	15	100	W		"	"	fine sand	"		15 m past 2018 Springton gossan	27	10	200		
2019	15	100	W		"	"	silt/sand	4			28	9	206		
2020	15	100	W		"	"	sand/silt	"			25	11	234		
2021	15	100	W		"	"	"	"		Samples 2021 → 2026 taken downstream from Helipad (west) South shore	29	10	228		
2022	15	100	W		bank	"	"	"			29	11	242		
2023	15	100	W		pt bar	"	"	"			26	11	232		
2024	15	100	W		side	"	"	"			24	10	263		
2025	15	100	S		center	light brown silt		15			105★	12	14,900★		
2026	15	100	W		side	grey		5			35	10	870		
All samples taken at 100 meter intervals along Bluff Creek															



GEOCHEMICAL DATA SHEET - ROCK CHIP SAMPLING

SAMPLER PB/DJ

NTS 94-L-10

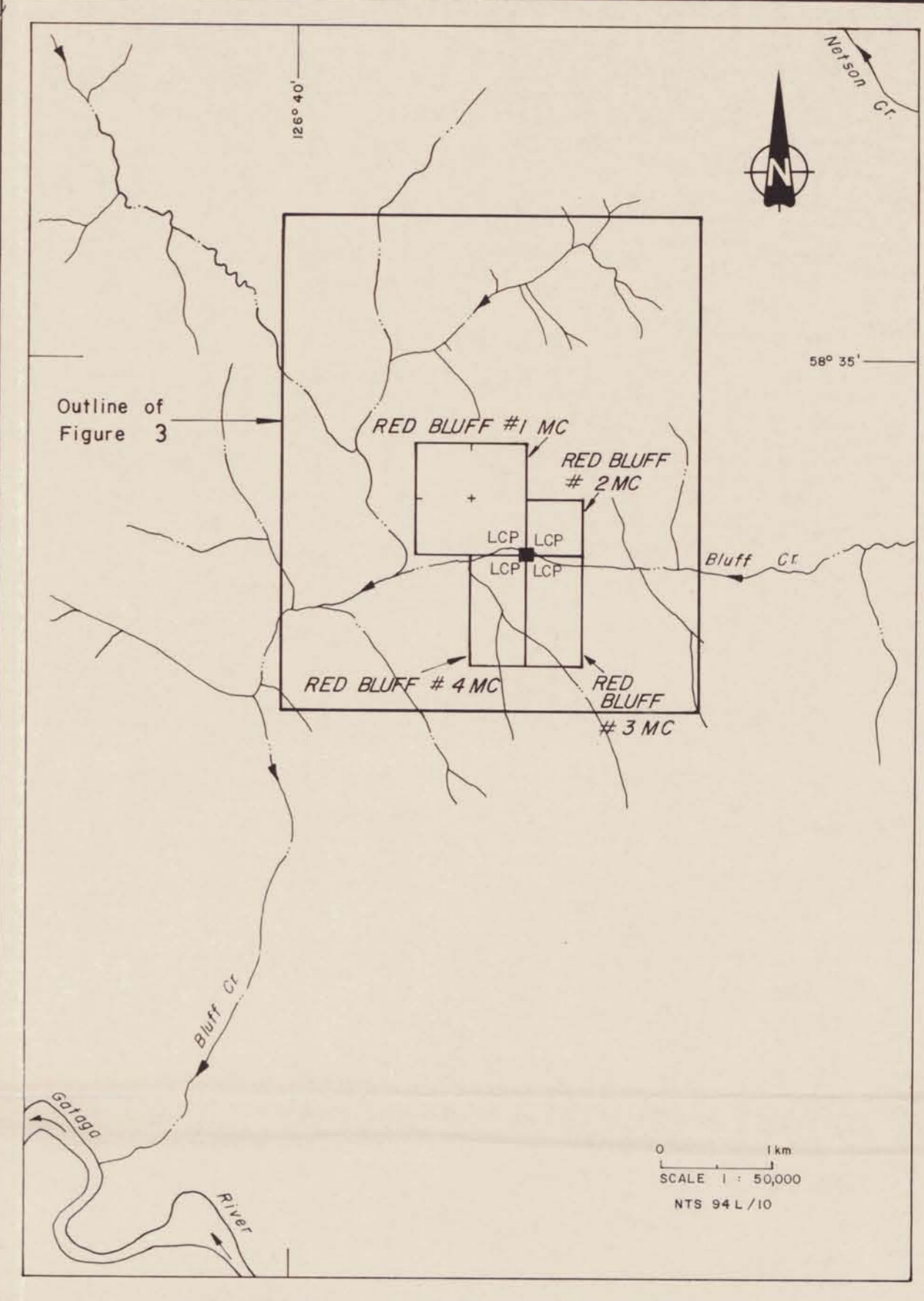
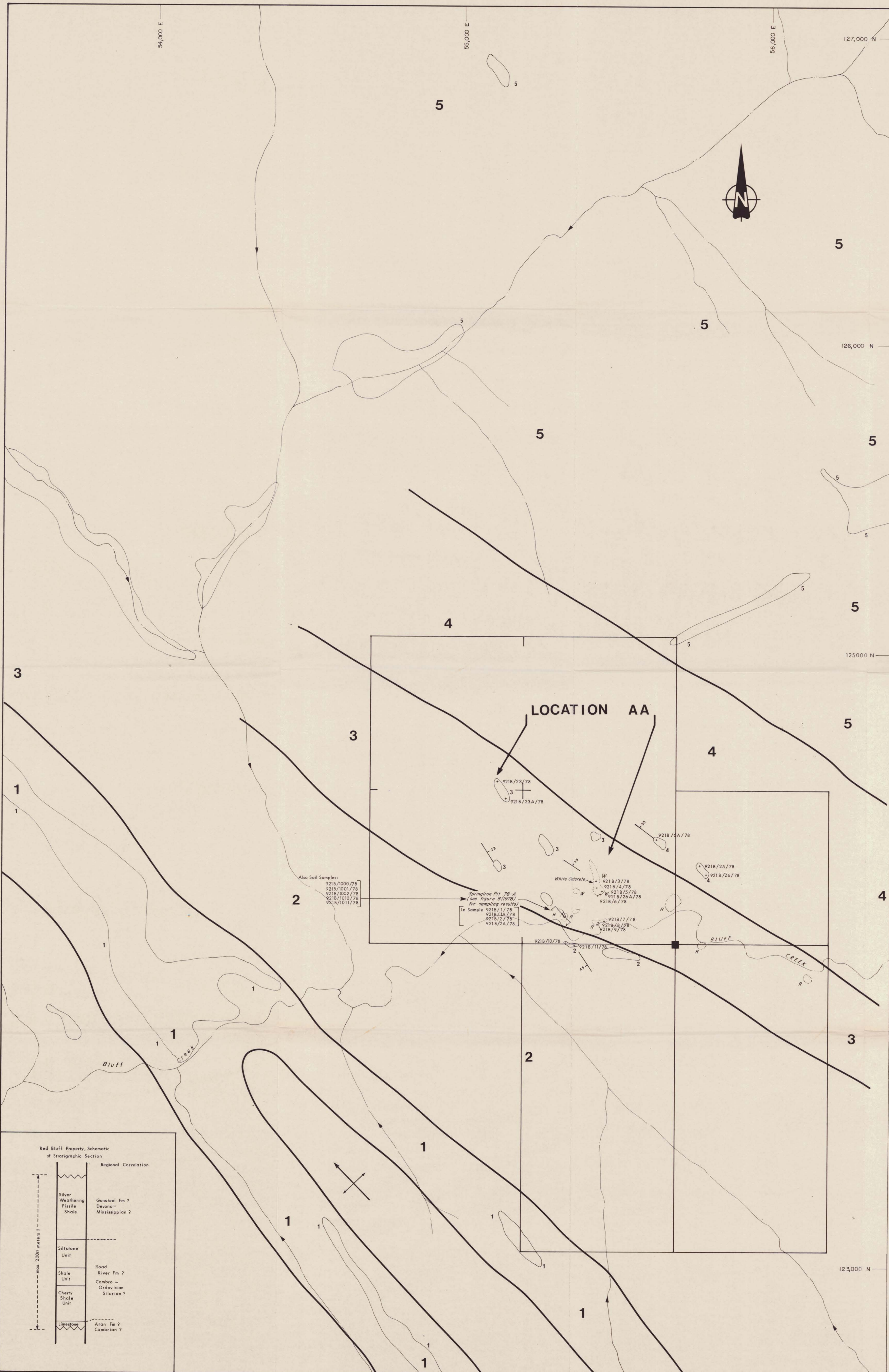
DATE Aug 29/78 - Dec 1978

PROJECT RED BLUFF PROJECT 921B/78

LINE \_\_\_\_\_

AIR PHOTO No. A 12347 - 109

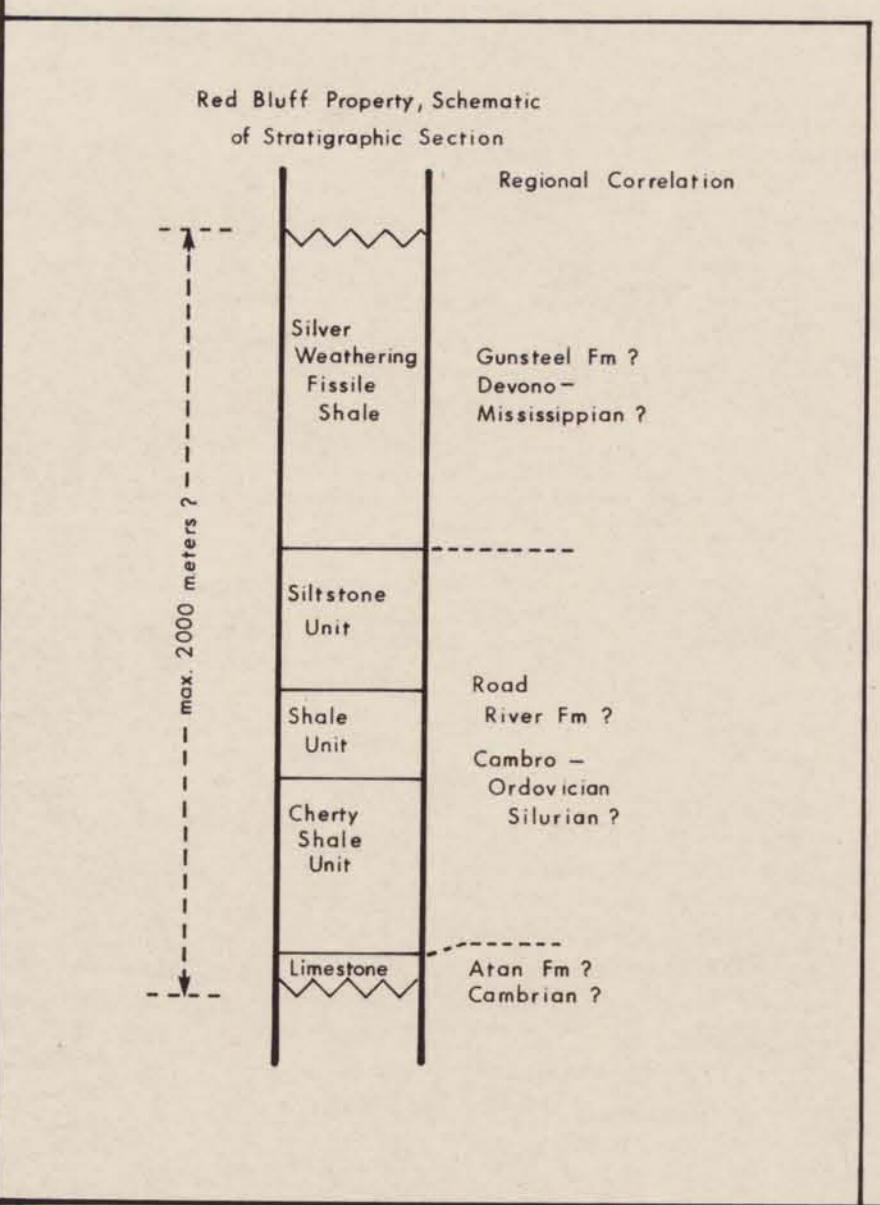
SAMPLE No.	ROCK TYPE	LOCATION <i>See Fig 9 1978 Report</i>	DESCRIPTION				ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS ppm			
			AGE	ALTERATION	FRESHNESS	VEINING MET. MIN.		Cu	Pb	Zn	
921B/1/78	Black Shale	REDBLUFF	Ordovician?	NA		Shale Unit	OC at upper end of pit 78-A Some red mud on sample to disassembly PB	164	2	1200	
921B/1A/78	" "	"	"			Shale Unit	Same OC as 921B/1/78 to disassembly PB	50	2	320	
921B/2/78	Frable Black Shale	"	"			Shale Unit	OC at lower end of pit 78-A South side weathered PB	38	8	3900	★
921B/2A/78	White Calcicrete	"	"		hard		found on OC 921B/2/78 PB	21	<2	>20,000	★
921B/6/78	Slate	"	"			Shale Unit	From near top of Shale Unit PYRITIC dissem. PB	24	6	74	
921B/6A/78	Siltstone	"	"			Siltstone Unit	float from hillside above. PB	420	7	155	
921B/7/78	fine foliated Slate	"	"		foliated	Shale Unit	PB	165	6	150	
921B/8/78	Reddish White Springiron	"	"		porous soft		Springiron at edge of Bluff Creek Oxlow PB	132	2	720,000	★
921B/9/78	Black Springiron	"	"		porous soft		May be Manganese rich * same location as above (Red & black layers in Springiron deposit PB	16	2	>20,000	★
921B/10/78	Slate blue black	"	"			Cherty Shale Unit	Locally massive bedding & cherty. PB	28	<2	430	
921B/13/78	White Calcicrete	"	"		hard		30° slope white calcicrete coats hillside (181° eq to helipad) grass killed!! PB	8	3	>20,000	★
921B/14/78	" "	"	"		hard		" " PB	15	18	15,000	★
921B/15/78	" "	"	"		hard		" " PB	88	144	8,800	★
921B/23A/78	Fossiliferous Slate	"	"			Shale Unit	Fossil - a colonial chain coral? #3 DJ	34	42	96	
921B/25/78	Siltstone	"	"			Siltstone Unit	Very similar to outcrop #5 DJ on SOLO property at location A above 5000'el	114	5	32	
921B/26/78	Siltstone	"	"			Siltstone Unit	#6 DJ	38	2	42	
921B/26A/78	White Calcicrete	"	"		porous soft		Sample taken approx 100m uphill from 921B/3/78 #6 DJ	64	4	>20,000	★
921B/23/78	Carbonaceous Shale	"	"			Shale Unit	#3 DJ	4	8	18	



1978 ROCK CHIP SAMPLING RESULTS

Sample	Rock Unit	Cu ppm	Pb ppm	Zn ppm or %
9218/10/78	Cherty shale unit	28	2	430
9218/1/78	Shale unit	164	2	1,200
9218/14/78	" "	50	2	320
9218/2/78	" "	38	8	3,900
9218/23/78	" "	4	8	18
9218/23A/78	" "	34	2	96
9218/6/78	" "	24	6	74
9218/7/78	" "	165	6	150
9218/2A/78	White calcareate	21	2	3.26%
9218/3/78	White calcareate	8	3	>20,000
9218/4/78	" "	15	18	>20,000
9218/5/78	" "	88	144	>20,000
9218/26A/78	" "	64	4	2.12%
9218/8/78	Red white calcareate	132	2	2.36%
9218/9/78	Black springiron	16	2	4.00%
9218/6A/78	Siltstone unit	420	7	155
9218/25/78	" "	114	5	32
9218/26/78	" "	38	2	42

- LEGEND**
- LITHOLOGIES**
- 5 Silver Weathering, Black Fissile Shale Unit
  - 4 Siltstone Unit, Light grey calcareous sandy siltstone and cherty siltstone, yellow-brown whtg. Sandy limestone Grey limestone Dark grey cherty limestone Black cherty shale
  - 3 Shale Unit, Fissile shale Grey fissile shale limonite staining, locally sandy limestone nodules.
  - 2 Cherty Shale Unit, Cherty argillite, Locally calcareous argillite and limestone lenses
  - 1 Limestone Unit
- SYMBOLS**
- Inferred geological contact
  - Inferred thrust fault
  - Anticlinal fold
  - Bedding
  - \* 9218/3/78 Rock chip sample location
  - Outcrop
  - Spring Seepage R - Red Springiron gossan ferricrete deposit W - White calcareate tuffa deposit
  - Sample Pit



Claim posts and boundaries located by pace and compass traverse on airphotos

Scale 1 : 5,000

Figure 3 To Accompany 1978 Assessment Report

**Texasgulf Inc.**

**RED BLUFF #1 to 4 CLAIMS**

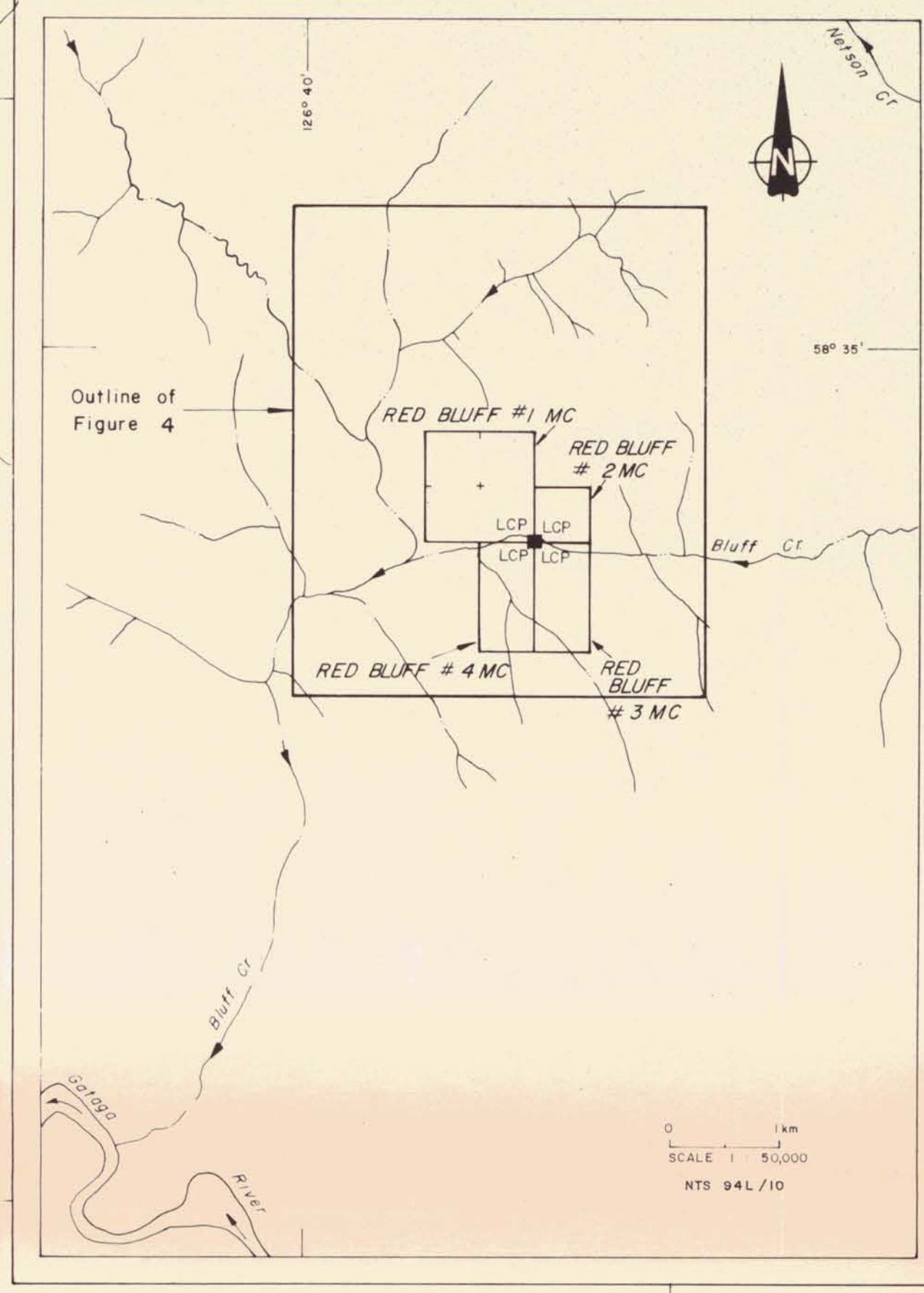
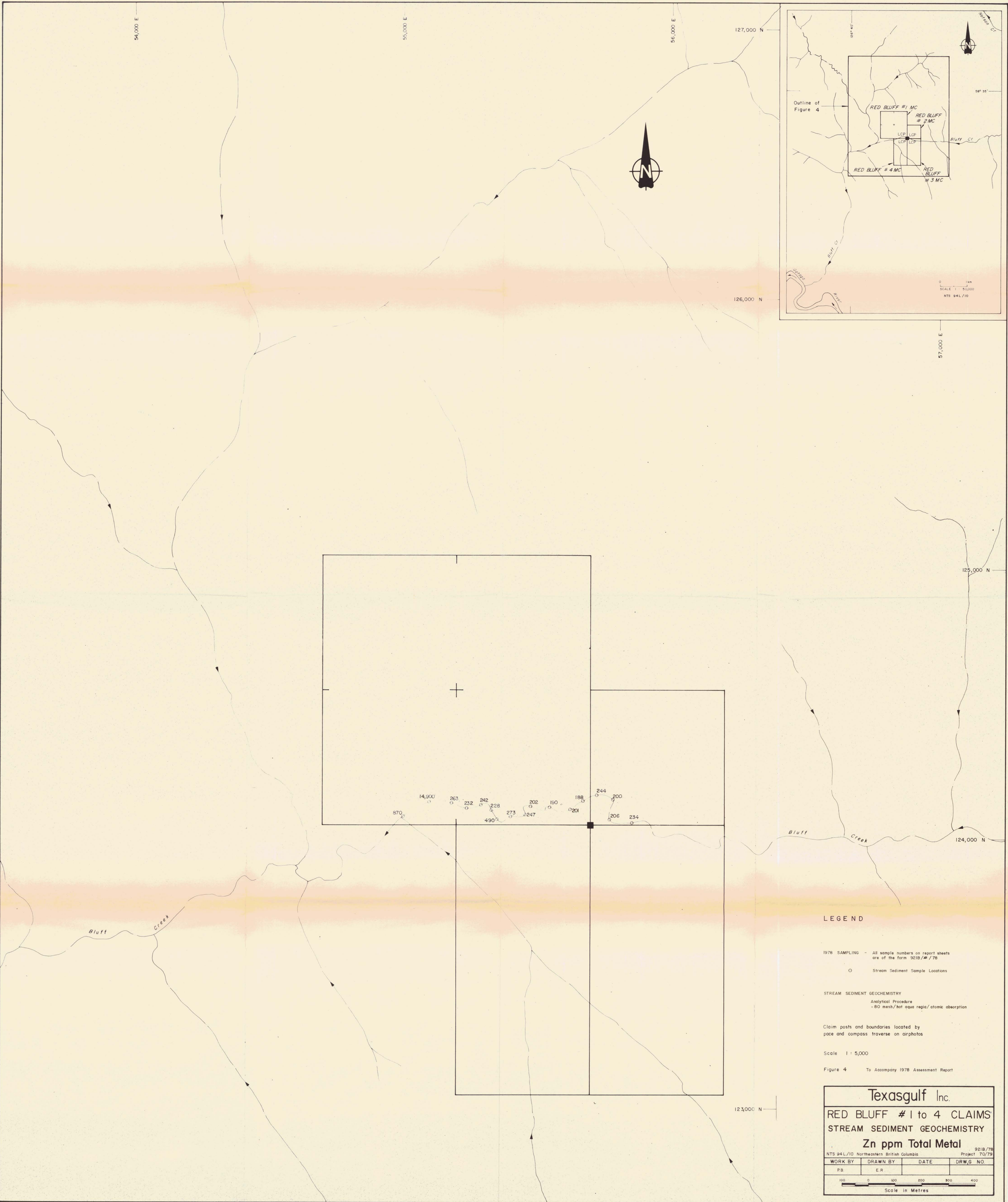
**ROCK CHIP GEOCHEMISTRY & OUTCROP GEOLOGY MAP**

9218/78 Project 70/79

WORK BY	DRAWN BY	DATE	DRWG NO.
P.B.	E.R.		

100 0 100 200 300 400  
Scale in Metres





**LEGEND**

1978 SAMPLING - All sample numbers on report sheets are of the form 921B/#/78

○ Stream Sediment Sample Locations

STREAM SEDIMENT GEOCHEMISTRY  
Analytical Procedure  
- 80 mesh/hot aqua regia/atomic absorption

Claim posts and boundaries located by  
pace and compass traverse on airphotos

Scale 1:5,000

Figure 4 To Accompany 1978 Assessment Report

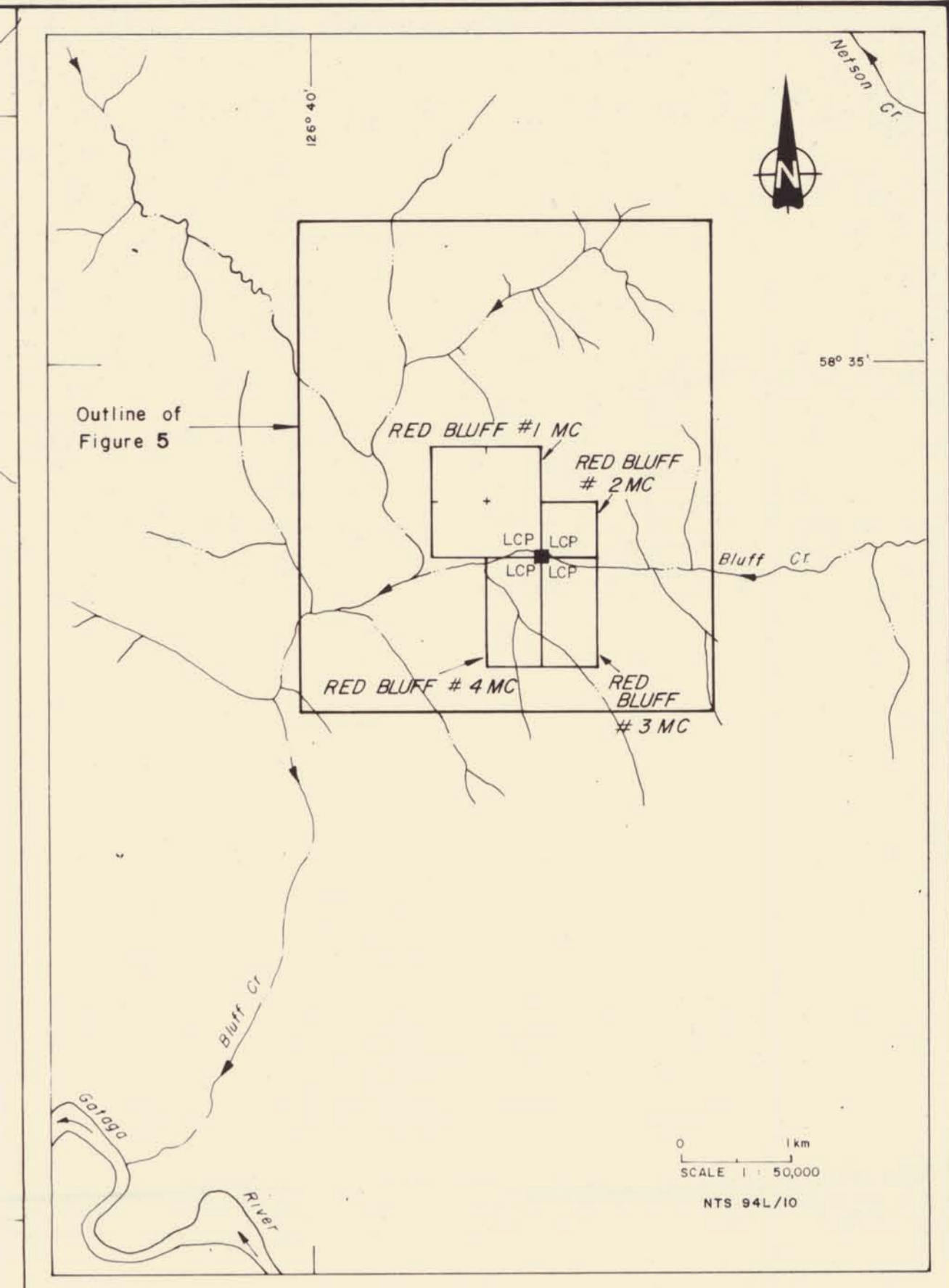
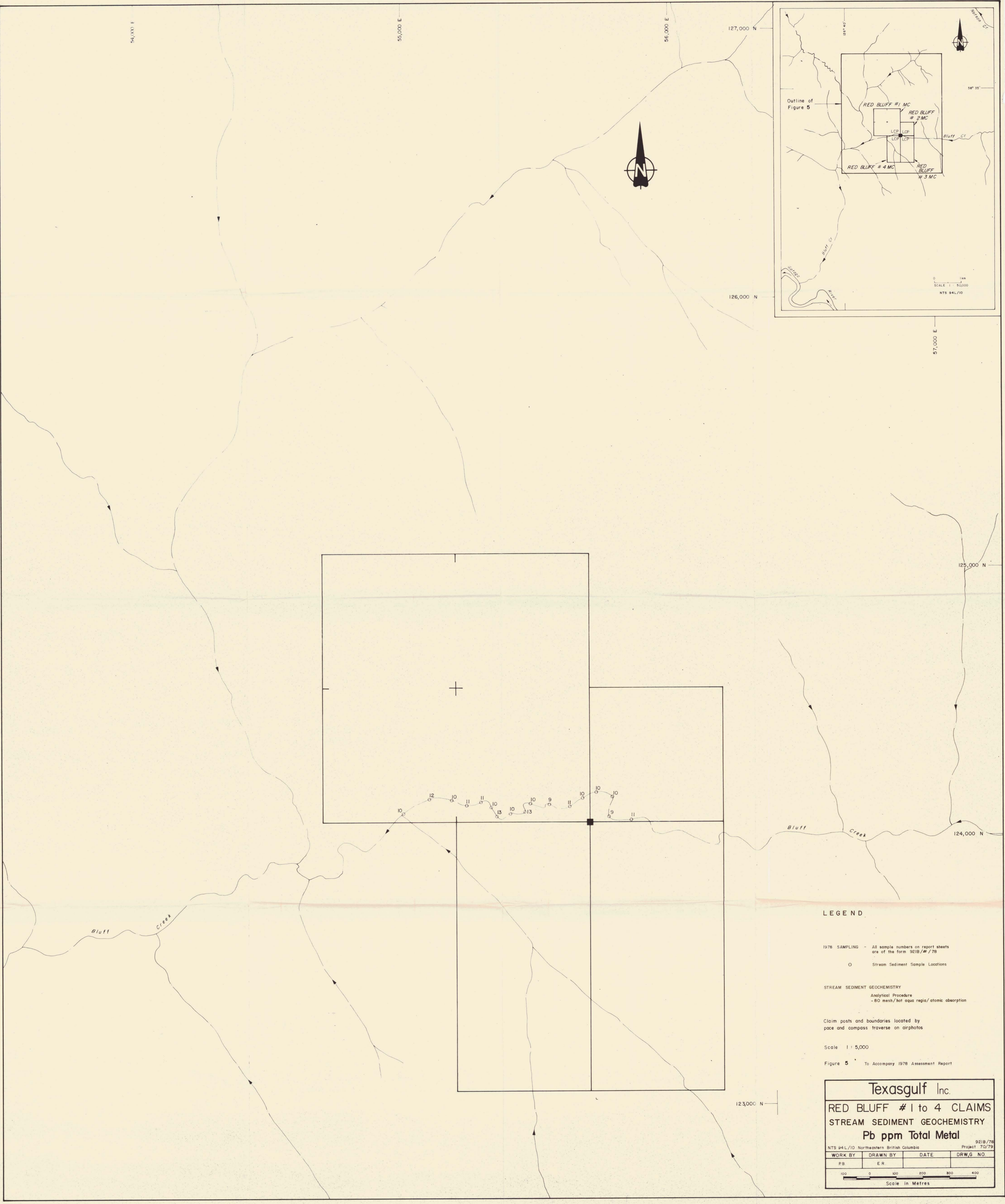
**Texasgulf Inc.**

**RED BLUFF #1 to 4 CLAIMS**  
**STREAM SEDIMENT GEOCHEMISTRY**  
**Zn ppm Total Metal**

NTS 94L/10 Northeastern British Columbia 921B/78  
Project 70/79

WORK BY	DRAWN BY	DATE	DRWG NO.
P.B.	E.R.		

Scale in Metres



**LEGEND**

1978 SAMPLING - All sample numbers on report sheets are of the form 921B/#/78

○ Stream Sediment Sample Locations

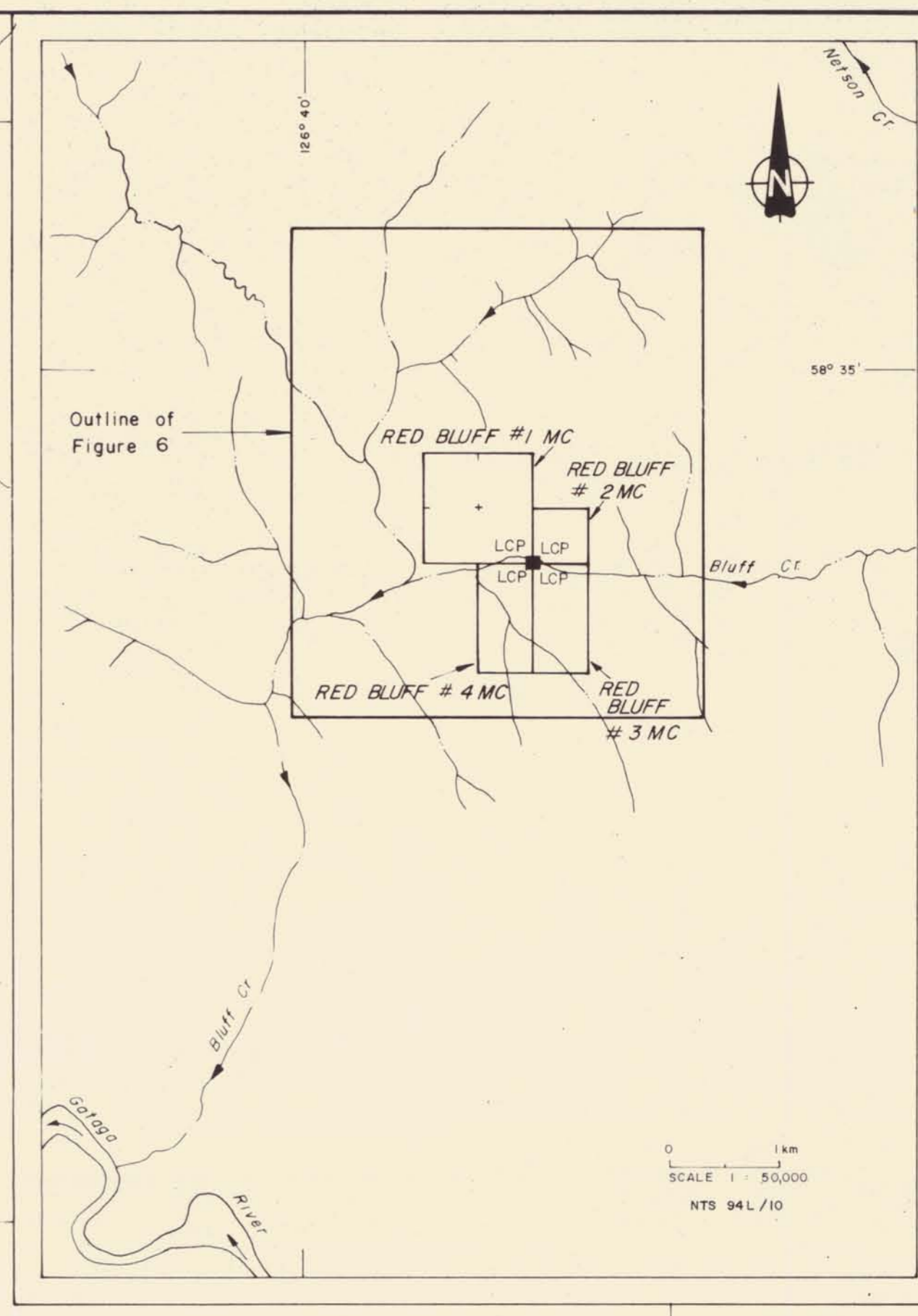
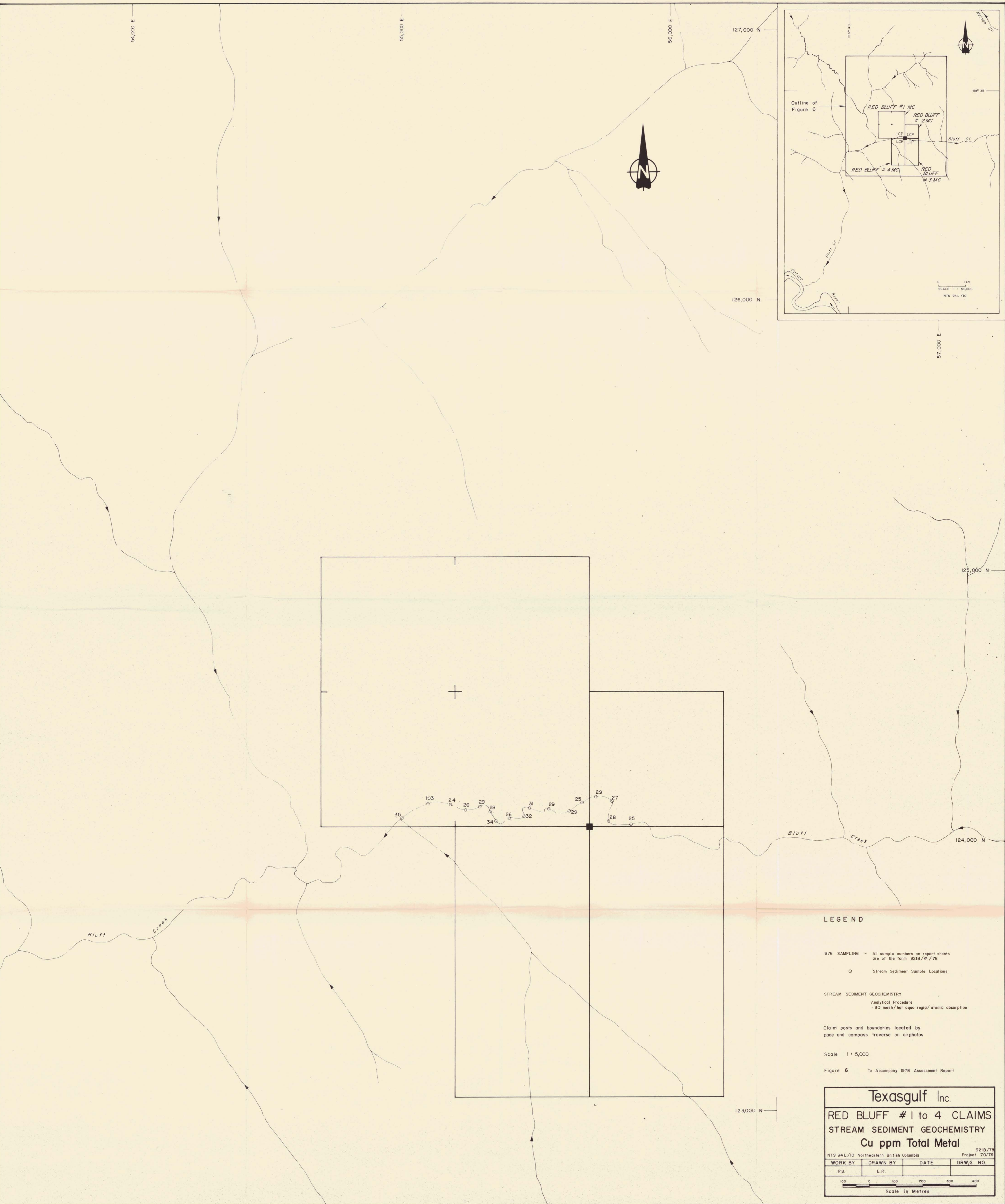
STREAM SEDIMENT GEOCHEMISTRY  
Analytical Procedure  
- 80 mesh/hot aqua regia/atomic absorption

Claim posts and boundaries located by  
pace and compass traverse on airphotos

Scale 1:5,000

Figure 5 To Accompany 1978 Assessment Report

<b>Texasgulf Inc.</b>			
<b>RED BLUFF #1 to 4 CLAIMS</b>			
<b>STREAM SEDIMENT GEOCHEMISTRY</b>			
<b>Pb ppm Total Metal</b>			
<small>921B/78 Project 70/79</small>			
<small>NTS 94L/10</small>	<small>Northeastern British Columbia</small>	<small>Project 70/79</small>	<small>921B/78</small>
<b>WORK BY</b>	<b>DRAWN BY</b>	<b>DATE</b>	<b>DRWG NO.</b>
PB	ER		
<p>Scale in Metres</p>			



**LEGEND**

1978 SAMPLING - All sample numbers on report sheets are of the form 921B/#/78

○ Stream Sediment Sample Locations

STREAM SEDIMENT GEOCHEMISTRY  
Analytical Procedure  
- 80 mesh/hot aqua regia/atomic absorption

Claim posts and boundaries located by  
pace and compass traverse on airphotos

Scale 1 : 5,000

Figure 6 To Accompany 1978 Assessment Report

**Texasgulf Inc.**

**RED BLUFF #1 to 4 CLAIMS**  
**STREAM SEDIMENT GEOCHEMISTRY**  
**Cu ppm Total Metal**

921B/78  
Project 70/79

NTS 94L/10 Northeastern British Columbia

WORK BY	DRAWN BY	DATE	DRWG NO.
PB	ER		

Scale in Metres

54,000 E

55,000 E

56,000 E

127,000 N

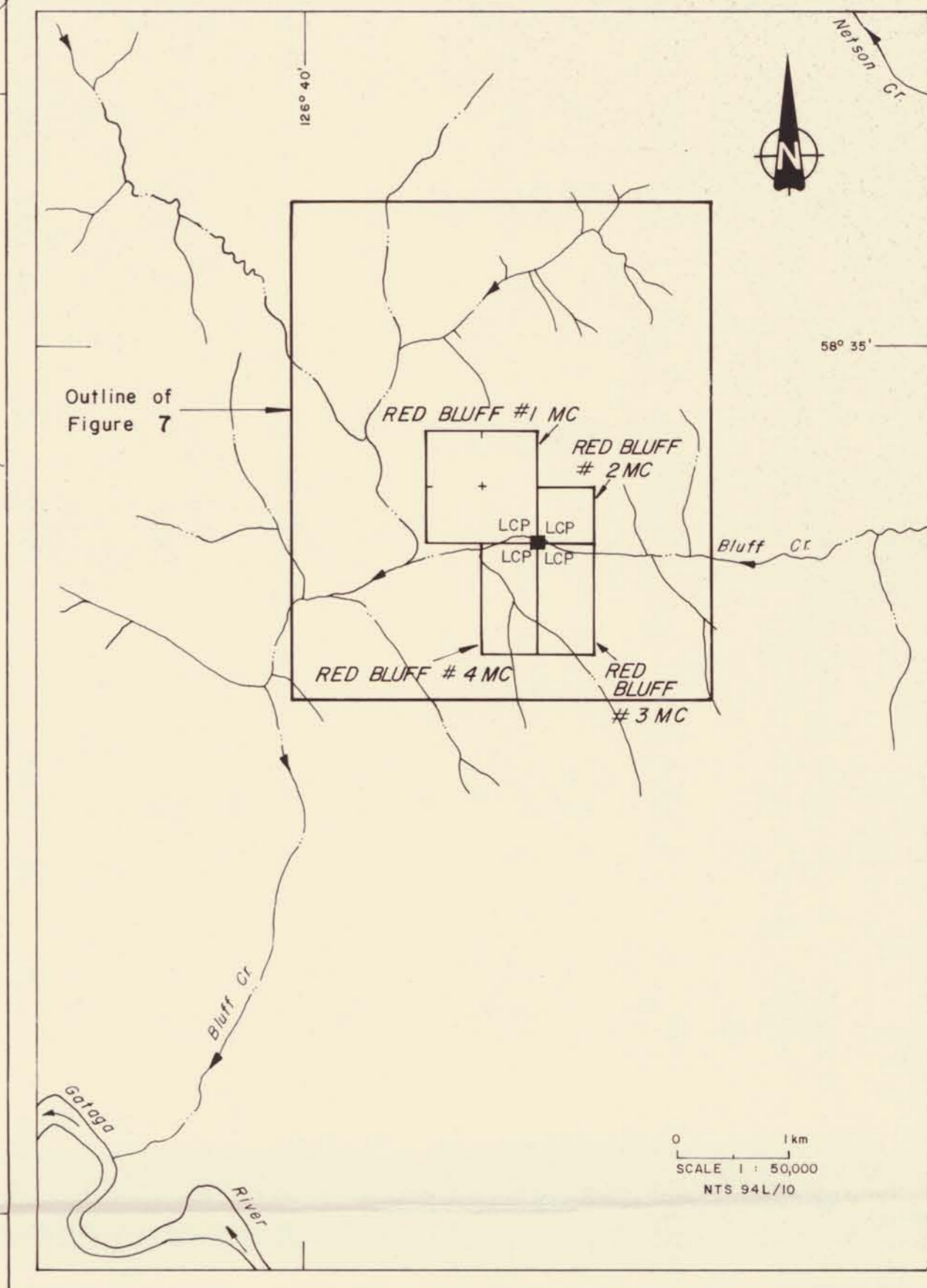
126,000 N

57,000 E

125,000 N

124,000 N

123,000 N



**LEGEND**

1978 SAMPLING - All sample numbers on report sheets are of the form 9218/#/78

○ Stream Sediment Sample Locations

STREAM SEDIMENT GEOCHEMISTRY  
Analytical Procedure  
- 80 mesh/hot aqua regia/atomic absorption

Claim posts and boundaries located by  
pace and compass traverse on airphotos

Scale 1 : 5,000

Figure 7 To Accompany 1978 Assessment Report

<b>Texasgulf Inc.</b>			
<b>RED BLUFF #1 to 4 CLAIMS</b>			
<b>STREAM SEDIMENT GEOCHEMISTRY</b>			
<b>SAMPLE LOCATIONS</b>			
NTS 94L/10 Northeastern British Columbia		Project 9218/78	
Project 70/79		Project 70/79	
WORK BY	DRAWN BY	DATE	DRWG NO.
P.B.	E.R.		
Scale in Metres			

Bluff Creek

Bluff Creek